Integrating Information: Crossing Boundaries

David J. Roberts

2002 Digital Government

Boot Camp for Idaho Policy Makers

Assessing the Impact of 9/11

- There are a host of legislative and policy initiatives emerging from the terrorist attacks of September 11, 2001 that have significant IT implications for the nation:
  - USA Patriot Act (Pub. L. No. 107-56);
  - Aviation & Transportation Security Act (Pub. L. No. 107.71);
  - Immigration Reform Act;
  - Trusted passenger programs of industry;
  - FAA regulations regarding airport personnel; etc.

IT Implications

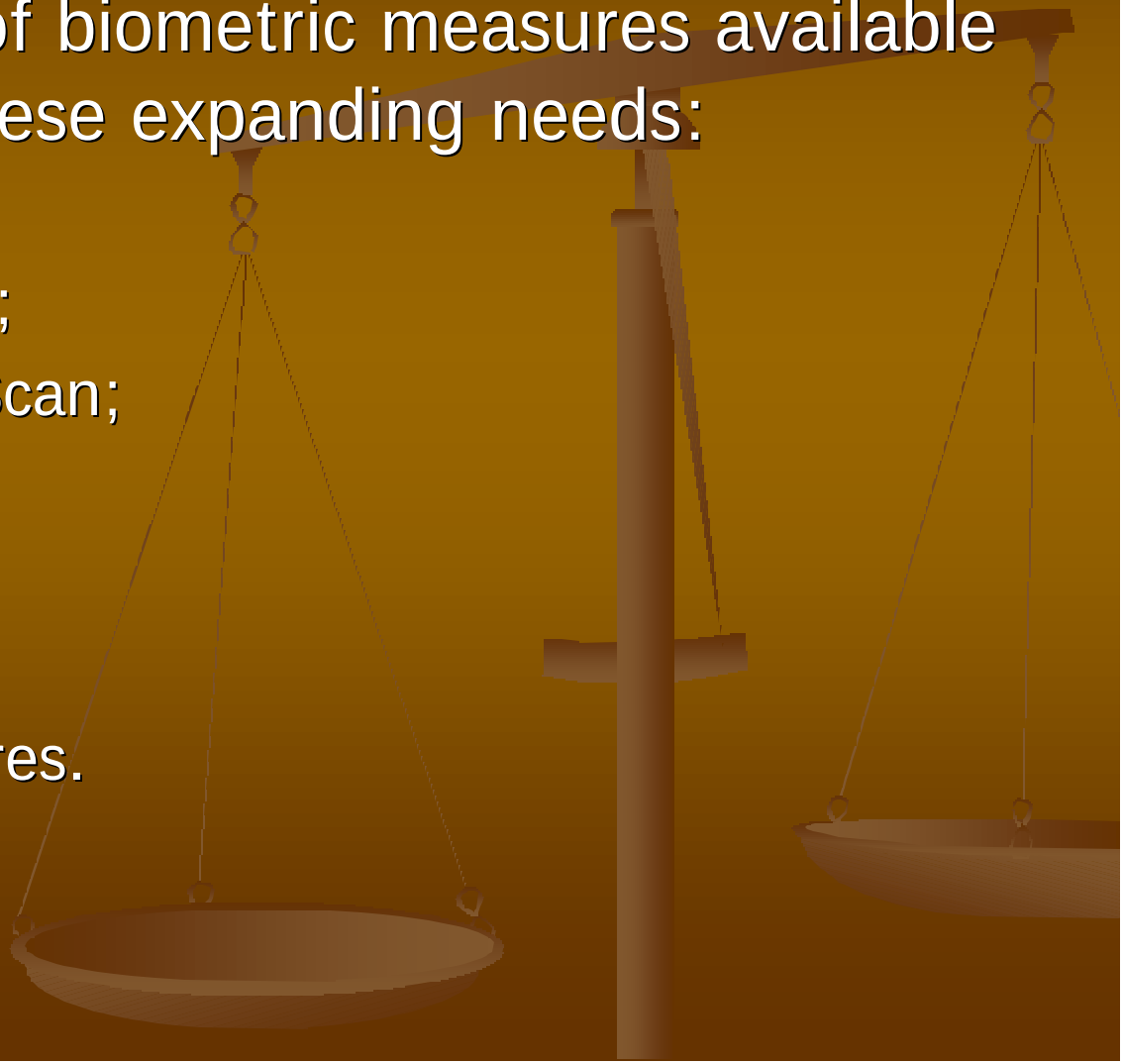
- These initiatives call for a series of measures for improved security:
  - Identification and identity verification;
  - Expanded use of biometrics;
  - Expanded use of background investigations;
  - Broad information sharing;
  - Instant access to relevant local, regional, state and national information systems.

Initiative Objectives

- At least two major objectives of these initiatives:
  - Exclude people who are clearly inappropriate (e.g., known terrorists) from entering the country, boarding planes, etc.---*identification*;
  - Assess the suitability and security of people to enter or have access to secured areas and resources (trusted passengers, etc.)---*verification.*
- Require rather different technologies and access to databases.

Biometric Observations

- There are a host of biometric measures available to help address these expanding needs:
  - Fingerprints;
  - Facial Recognition;
  - Iris Scan/Retinal Scan;
  - DNA Profiles;
  - Voice Recognition;
  - Signature;
  - Behavioral measures.



Biometric Observations

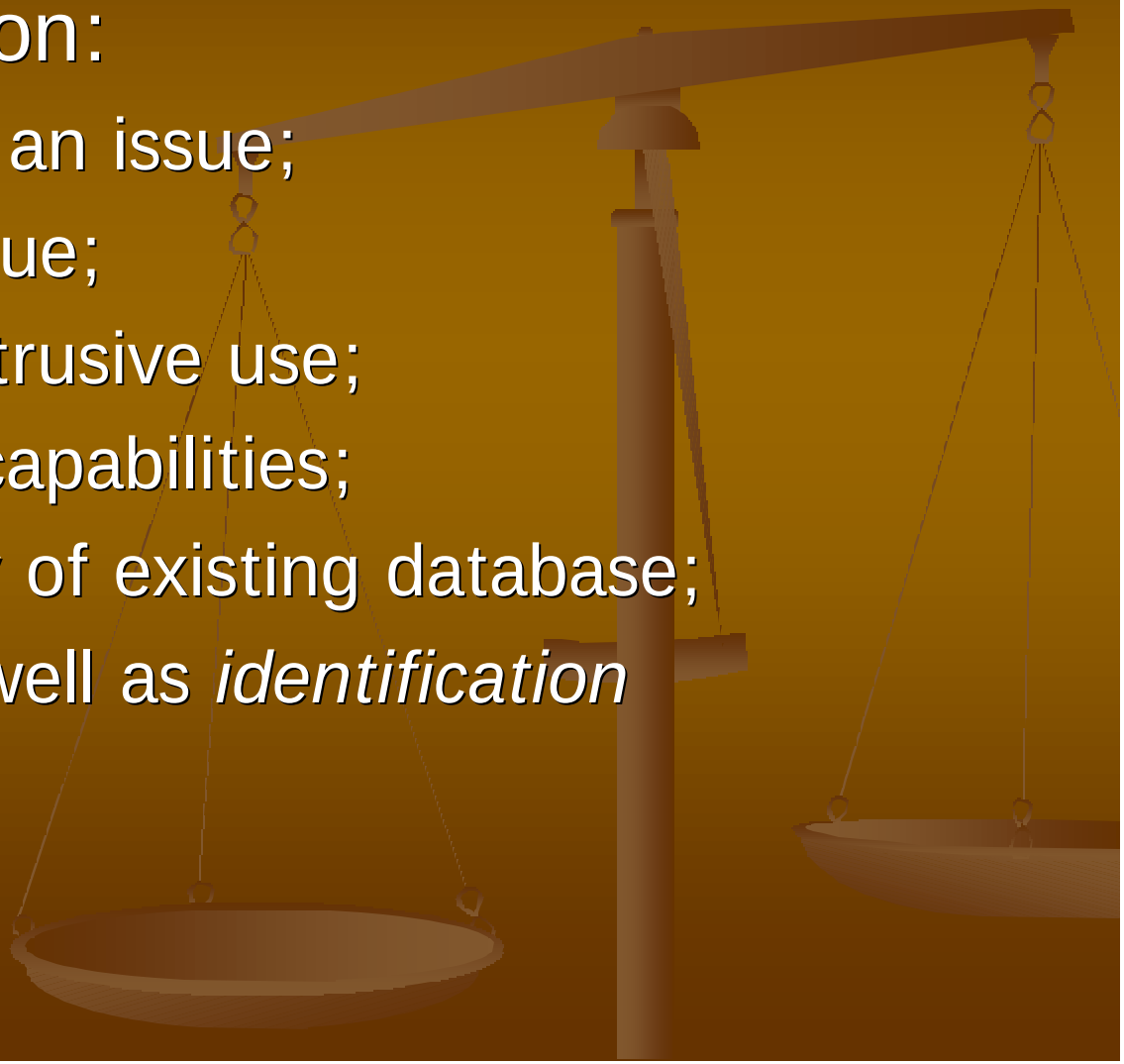
- Each of these biometric measures have strengths and weaknesses.
- There is no *single* biometric measure that is *the* answer for all applications.
- Purposes, costs and environmental implementation factors will help determine which is most appropriate in any given setting, and multiple measures will most likely be required.

Biometric Observations

- Fingerprints:
  - Large existing databases;
  - Forensic capabilities;
  - Diminishing costs of technology;
  - Broad public acceptance and confidence;
  - Emerging flat fingerprint technologies;
  - Relatively unobtrusive use;
  - *Verification* as well as *identification* capabilities.

Biometric Observations

- Facial Recognition:
  - Effectiveness is an issue;
  - Costs are an issue;
  - Relatively unobtrusive use;
  - Some forensic capabilities;
  - Size and quality of existing database;
  - *Verification* as well as *identification* capabilities.



Biometric Observations

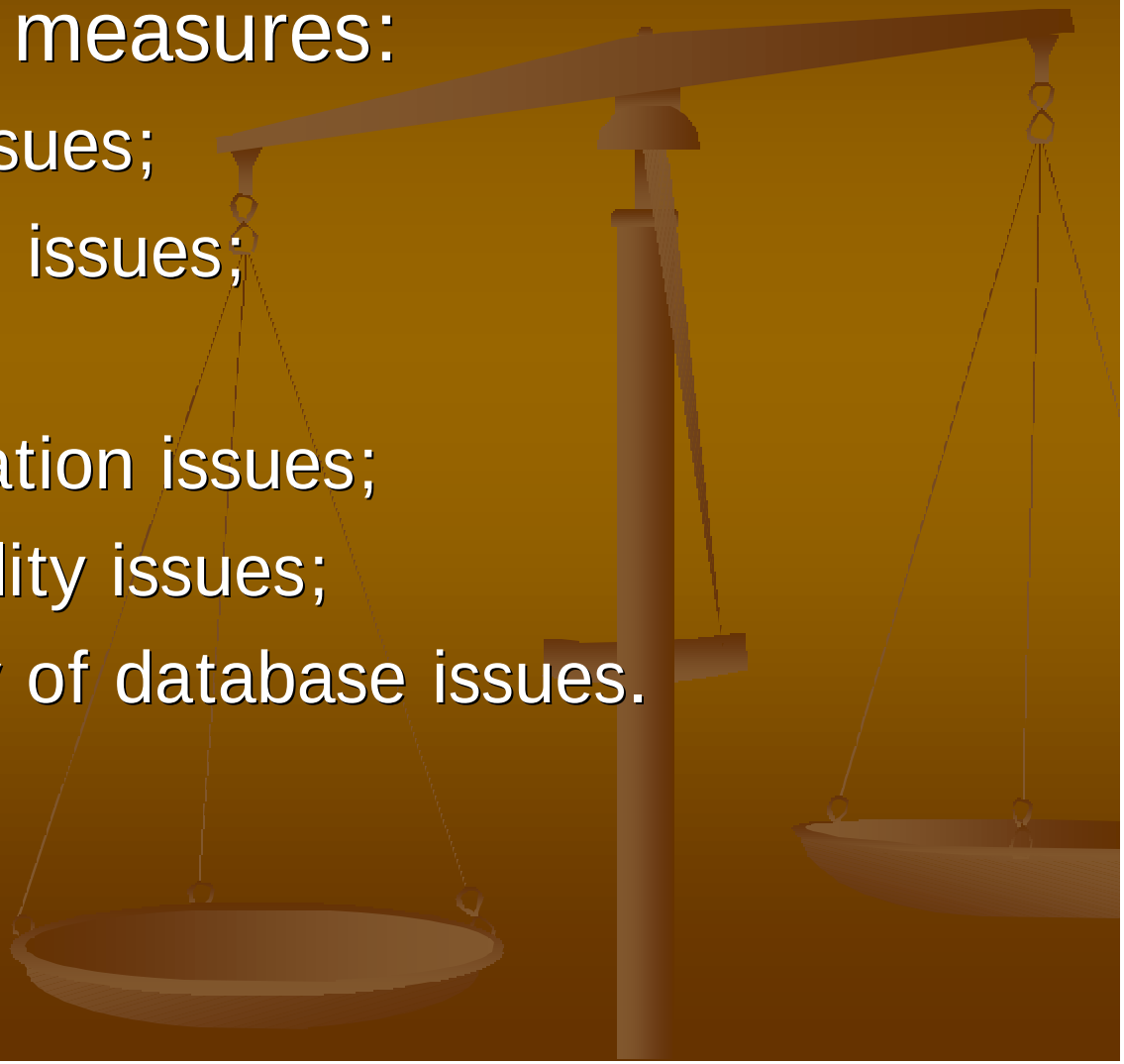
- Iris/Retinal Scanning
  - Iris is effective; retinal scanning less effective;
  - Few forensic capabilities;
  - Subject cooperation is an issue;
  - Costs are an issue;
  - Verification capabilities, but not extensive identification capabilities;
  - Size of existing databases is relative small.

Biometric Observations

- DNA Profiles:
  - Costs and timeliness are presently issues;
  - DNA profiles are very effective and seem to have considerable public support;
  - Significant forensic capabilities;
  - Expanding, but focused, existing databases;
  - Verification and identification capabilities.

Biometric Observations

- Other biometric measures:
  - Effectiveness issues;
  - Implementation issues;
  - Cost issues;
  - Subject cooperation issues;
  - Forensic capability issues;
  - Size and quality of database issues.



General Observations

- Biometrics is just *one element in the equation*:
  - **Must also have linkage to appropriate databases;**
- Reconciliation of competing/overlapping standards (image);
- Haven't yet determined *suitability* factors, which should be the subject of considerable research and policy discussion;
- We're pushing the limits of existing resources at the state and local levels for background checks;
- Jurisdictions will need assistance in responding to an unprecedented growth in background checks.

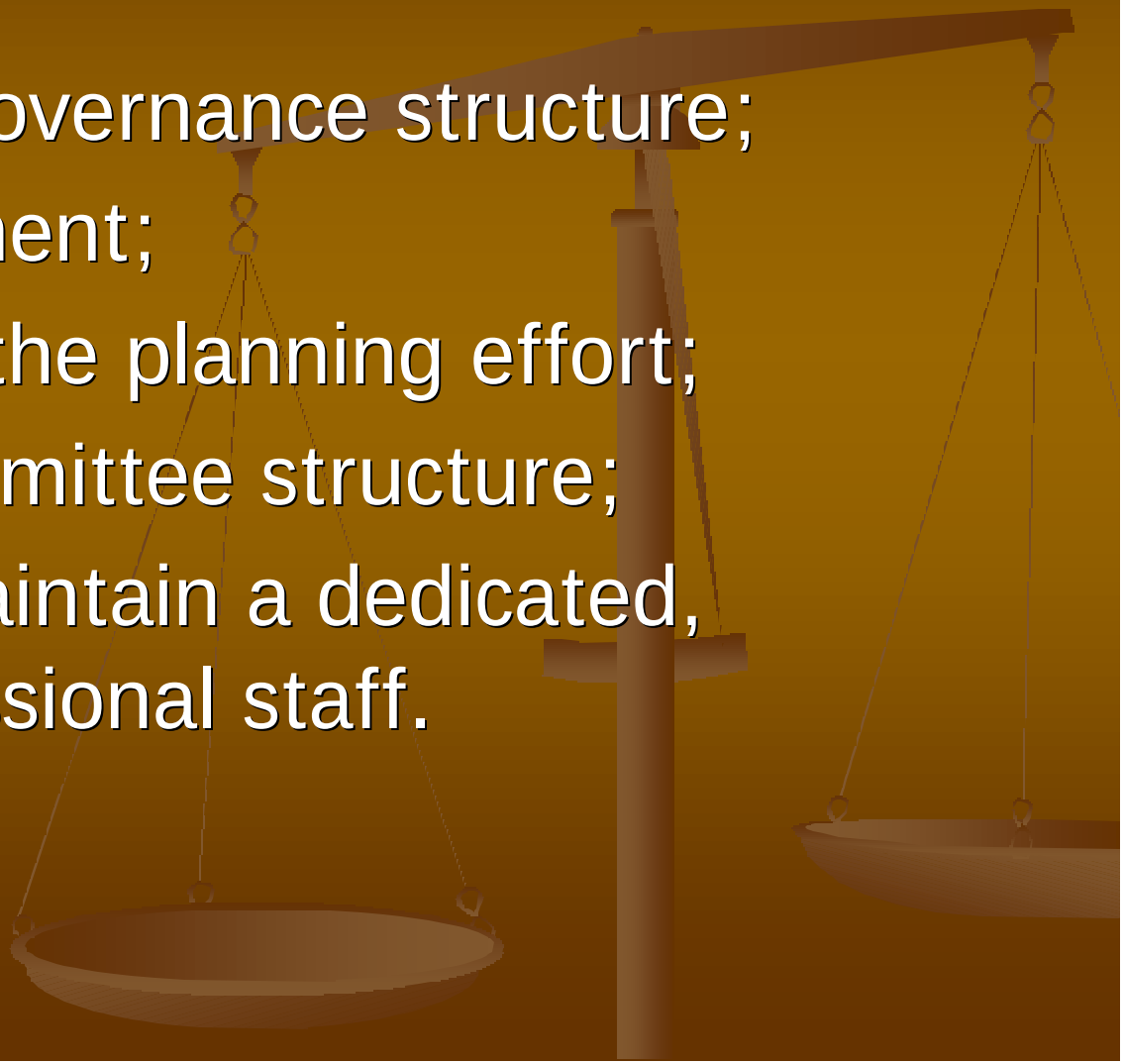
Universal Elements of Successful Integration Planning & Implementation

I. Articulate vision that is broadly shared;
II. Well-formed governance structure;
III. Follow strategic planning principles;
IV. Sufficient and on-going funding;
V. Adoption and support of standards;
VI. Technical solutions: architecture, infrastructure and applications;
VII. Anticipate and address information policy issues.

A Common Understanding

- A common definition of integration:
  - The ability to access and share critical information at key decisionpoints throughout the justice enterprise;
- Specific, measurable objectives;
- Internal, horizontal and vertical integration;
- Scope: Justice, Public Safety, Social Services, other relevant information systems;
- Recognize roles and responsibilities.

Governance Structure



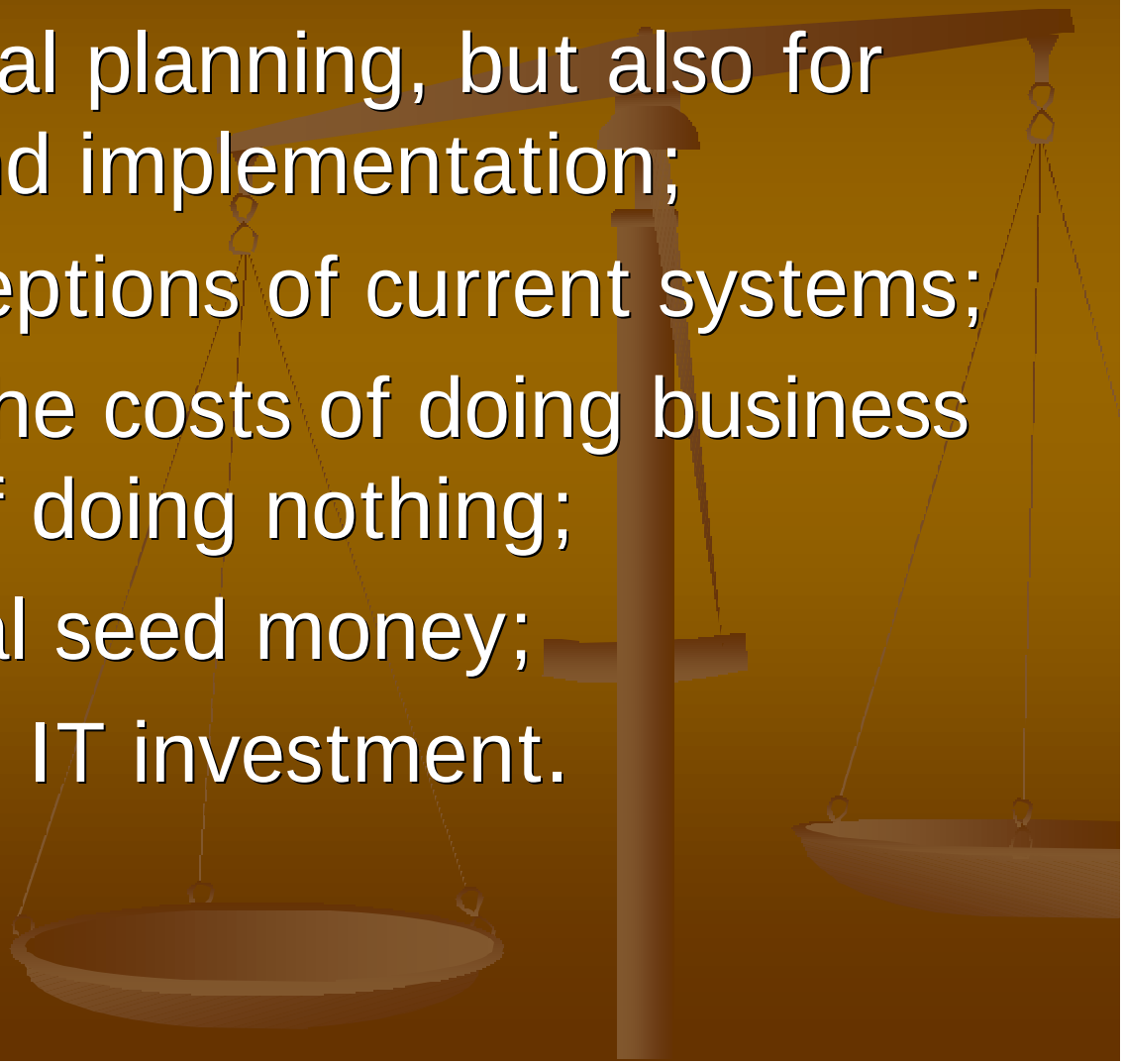
- Formalize the governance structure;
- Foster commitment;
- Institutionalize the planning effort;
- Specialized committee structure;
- Develop and maintain a dedicated, invested, professional staff.

Strategic Planning

- Clearly define objectives and operational requirements;
- Assess current capabilities and impediments;
- Build with interim milestones that:
  - Demonstrate movement to a common objective;
  - Are measurable steps in a well-formed plan;
  - Allow on-going alignment with project objectives; and
  - Can be addressed with existing and planned resources;
- Planning is on-going—not a static document;
- Re-engineer where possible.

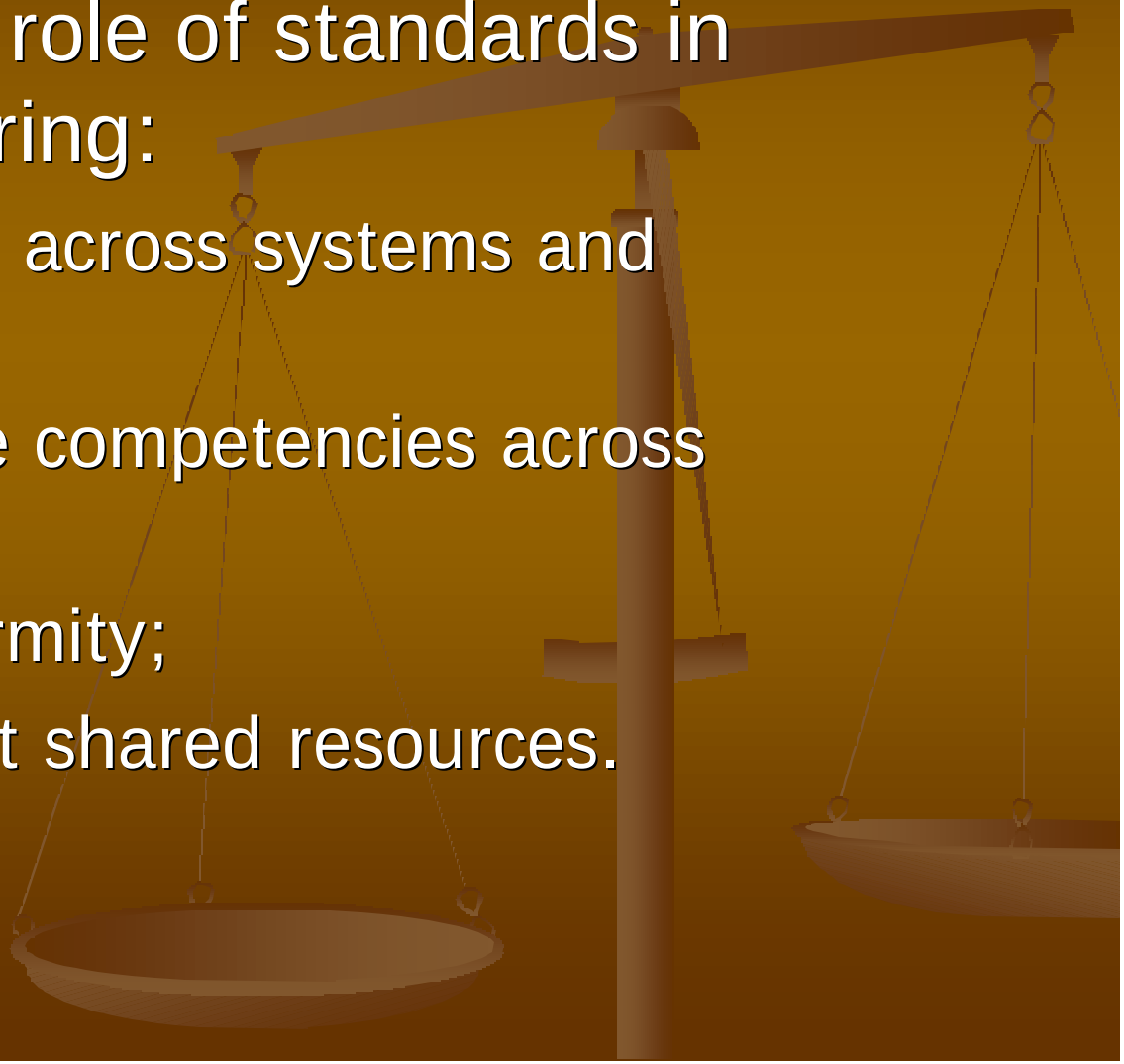
Funding

- Funding for initial planning, but also for development and implementation;
- Overcome perceptions of current systems;
- Recognize the the costs of doing business and the costs of doing nothing;
- Leverage federal seed money;
- Think long term IT investment.



Standards

- Understand the role of standards in information sharing:
  - Enables sharing across systems and jurisdictions;
  - Establishes core competencies across disciplines;
  - Promotes uniformity;
  - Builds important shared resources.

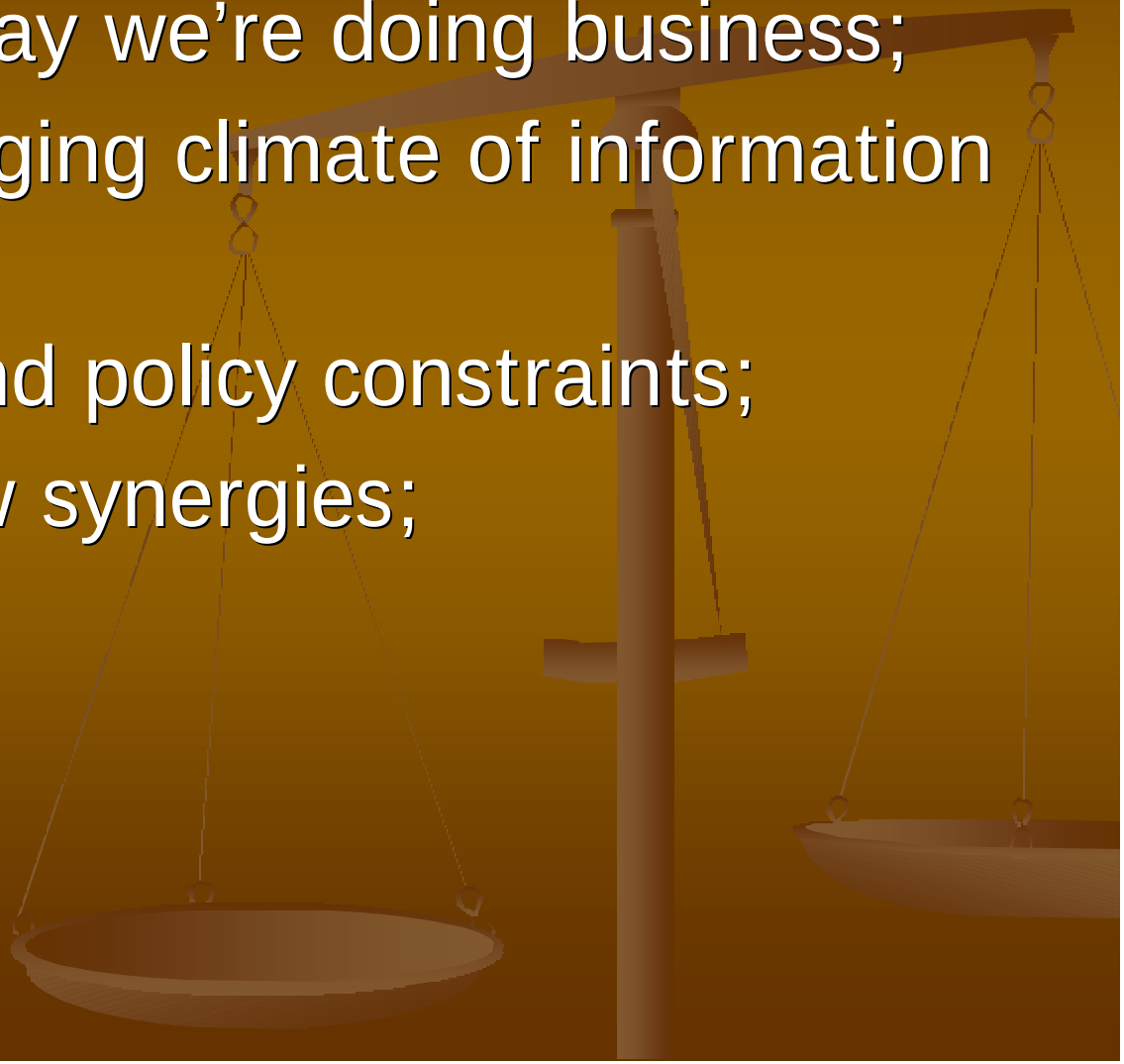


Technology

- Evolution of technology:
  - We have evolved from a *Mainframe-centric* world to a *PC-centric* world, and emerged into a *Network-centric* world;
  - We are quickly evolving into a *Content-centric* world;
- There is no ONE BEST WAY to build integration;
- There are a host of technical solutions to build information sharing capabilities;
- Leverage existing systems and information;
- Address technology at three levels:
  - Architecture:
  - Infrastructure;
  - Applications

Information Policy

- Changing the way we're doing business;
- Recognize changing climate of information sharing;
- Identify legal and policy constraints;
- Understand new synergies;
- Anticipate ...



CFA^2

- Commitment and Collaboration:
  - Establish & maintain commitment by key stakeholders;
  - Continuously collaborate with stakeholders/users.
- Focus and Funding:
  - Keep your project focused on objectives;
  - Leverage federal funding with state & local investment.
- Action and Accountability:
  - Produce results in the short AND the long term;
  - Enforce accountability—milestones & measures.